



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,658	12/30/2003	Golchehreh Salamat	560773	1657

27452 7590 03/21/2007  
SCHLUMBERGER TECHNOLOGY CORPORATION  
IP DEPT., WELL STIMULATION  
110 SCHLUMBERGER DRIVE, MD1  
SUGAR LAND, TX 77478

EXAMINER

COY, NICOLE A

ART UNIT PAPER NUMBER

3672

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	03/21/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/21/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ssitzmann@sugar-land.oilfield.slb.com  
pmohan@sugar-land.oilfield.slb.com

## Office Action Summary

Application No.

10/707,658

Applicant(s)

SALAMAT, GOLCHEHREH

Examiner

Nicole Coy

Art Unit

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parlar et al. (USP 6,631,764) in view of Fischer et al. (USP 3,753,903).

With respect to claims 1 and 2, Parlar et al. teaches a method of gravel packing a hole in subterranean formation including the step of pumping into the hole a gravel pack composition consisting of gravel and a brine-in-oil emulsion carrier fluid (see column 8 lines 18-22). Parlar et al. further teaches an emulsion stabilized by an emulsifier based on a fatty acid ester (see column 8 line 21).

However, Parlar et al. is silent as to the specific fatty acid ester. Fischer et al. teaches that useful oil-soluble emulsifiers include sorbitan monooleate and sorbitan trioleate (see column 6 lines 32-35). Fischer et al. teaches that these sorbitan fatty acid esters are added to the carrier fluid in order to stabilize it (see column 6 line 23). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Parlar et al. by selecting sorbitan monooleate and sorbitan trioleate as the specific fatty acid ester as taught by Fischer et al. in order to form a stable carrier fluid.

Furthermore, the emulsion solution of Parlar et al. in view of Fischer et al. is that which is recited in claim 1, and therefore would present a shoulder peak before the monomer peak when analyzed by gel permeation chromatography and wherein the stability of the brine-in-oil emulsion is proportional to the height of the shoulder peak relative to the monomer peak.

With respect to claim 3, the ratio between the peak height of the earlier and later peak would inherently be greater than 0.5 as the emulsion solution of Parlar et al. in view of Fischer et al. is substantially identical to the claimed emulsion.

With respect to claim 4, Parlar et al. teaches a brine solution of 50 % (see column 8 table 1).

With respect to claim 5, Parlar et al. teaches the aqueous phase of the carrier fluid comprising a chelating agent (see column 3 lines 29-34).

With respect to claim 6, Parlar et al. teaches examples of chelating agents, such as EDTA, CDTA, EGTA, HEDTA, and HEIDA (see column 3 lines 34-47).

With respect to claim 7, the aqueous phase is capable of being solids-free (see column 7 lines 36-49).

With respect to claim 8, Parlar et al. teaches that the aqueous phase comprises a pH-modifier and a dissolver (see column 7 lines 36-49).

### ***Response to Arguments***

3. Applicant's arguments filed 3/6/07 have been fully considered but they are not persuasive. Applicant argues that Parlar in view of Fischer does not teach a

Art Unit: 3672

composition consisting of gravel in brine-in-oil. However, the primary reference Parlar teaches a composition consisting of a gravel in brine-in-oil emulsion. The Fischer reference is a secondary reference being used to show a specific type of fatty acid (sorbitan) that works well in the oil-soluble emulsifier of Parlar et al. The Examiner is not asserting that Fischer teaches a brine-in-oil emulsion stabilized by a brine-in-oil emulsion forming emulsifier. As noted above, Parlar et al. teaches a brine-in-oil emulsion stabilized by a fatty acid ester. However, Parlar et al. is silent as to the type of fatty acid ester. Fischer et al. teaches that sorbitan is a type of fatty acid ester used to stabilize an oil-soluble emulsion. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Parlar et al. by selecting sorbitan monooleate and sorbitan trioleate as the specific fatty acid ester as taught by Fischer et al. in order to form a stable carrier fluid.

In addition, the Applicant argues that Parlar in view of Fischer et al. do not teach that the selection of a brine-in-oil forming emulsifier is limited to a sorbitan fatty acid ester emulsifier based upon the ratio of the shoulder peak relative to the monomer peak when analyzed by gel permeation chromatography. However, the emulsifier of Parlar in view of Fischer would have a shoulder peak before the peak depicted to be the monomer peak when analyzed by gas permeation and the stability of the brine-in-oil emulsion would be proportional to the height of the shoulder peak relative to the monomer peak. It is noted that Applicant has not shown unexpected results, or why the peak of Parlar in view of Fischer et al. would not be proportional to the height of the shoulder peak relative to the monomer peak.


**Conclusion**

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicole Coy whose telephone number is 571-272-5405. The examiner can normally be reached on M-F 7:30-5:00, 1st F off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

nac

  
**William Neuder**  
**Primary Examiner**